

Amalie L. Frischknecht

Nanoscience Related Publications

(Selected journal publications)

- *Two- and three-body interactions among nanoparticles in a polymer melt*, A. L. Frischknecht and A. Yethiraj, submitted to J. Chem. Phys. (2011).
- *Effect of polymer architecture and ionic aggregation on the scattering peak in model ionomers*, L. M. Hall, M. J. Stevens, and A. L. Frischknecht, Phys. Rev. Lett., in press (2011).
- *Grafted low molecular weight polymers as steric stabilizers of commercial titania nanoparticles in polydimethylsiloxane fluids*, N. S. Bell, A. L. Frischknecht, and M. Piech, J. Dispersion Sci. Technol. **32**, 128 (2011).
- *Binary fluid with attractions near a planar wall*, V. Padmanabhan, A. L. Frischknecht, and M. E. Mackay, Phys. Rev. E **82**, 021507 (2010).
- *Expanded chain dimensions in polymer melts with nanoparticle fillers*, A. L. Frischknecht, E. S. McGarrity, and M. E. Mackay, J. Chem. Phys. **132**, 204901 (2010).
- *Three-dimensional liquid surfaces through nanoparticle self-assembly*, T.C. Tseng, E. S. McGarrity, J. W. Kiel, P. M. Duxbury, M. E. Mackay, A. L. Frischknecht, S. Asokan, and M. S. Wong, Soft Matter **6**, 1533 (2010).
- *Modeling microscopic morphology and mechanical properties of block copolymer/nanoparticle composites*, J.Z. Jin, J.Z. Wu, and A.L. Frischknecht, Macromolecules **42**, 7537 (2009).
- *Calculation of entropic terms governing nanoparticle self-assembly in polymer films*, E.S. McGarrity, P.M. Duxbury, M.E. Mackay, and A.L. Frischknecht, Macromolecules **41**, 5952 (2008).
- *Forces between nanorods with end-adsorbed chains in a homopolymer melt*, A.L. Frischknecht, J. Chem. Phys. **128**, 224902 (2008).
- *Simulation of the adsorption of nucleotide monophosphates on carbon nanotubes in aqueous solution*, A. L. Frischknecht and M. G. Martin, J. Phys. Chem. C **112**, 6271-6278 (2008).
- *Phase behavior of polymer/nanoparticle blends near a substrate*, E.S. McGarrity, A.L. Frischknecht, and M.E. Mackay, J. Chem. Phys. **128**, 154904 (2008).
- *Surface-induced first order transition in athermal polymer/nanoparticle blends*, E.S. McGarrity, A. L. Frischknecht, L. J. D. Frink, and M. E. Mackay, Phys. Rev. Lett. **99**, 238302 (2007).
- *Computational investigations of pore forming peptide assemblies in lipid bilayers*, L.J.D. Frink and A.L. Frischknecht, Phys. Rev. Lett. **97**, 208701 (2006).
- *Alcohols reduce lateral membrane pressures: predictions from molecular theory*, A.L. Frischknecht and L.J.D. Frink, Biophys. J. **91**, 4081 (2006).
- *Comparison of density functional theory and simulation of fluid bilayers*, A.L. Frischknecht and L. J. D. Frink, Phys. Rev. E **72**, 041924 (2005).
- *Density functional theory approach for coarse-grained lipid bilayers*, L. J. D. Frink and A. L. Frischknecht, Phys. Rev. E **72**, 041923 (2005).
- *Numerical challenges in the application of density functional theory to biology and nanotechnology*, L. J. D. Frink, A. G. Salinger, M. P. Sears, J. D. Weinhold, and A. L. Frischknecht, J. Phys.: Condens. Matter, **14**, 12167 (2002).
- *Density Functional Theory for Inhomogeneous Polymer Systems: II. Application to Block Copolymer Thin Films*, A.L. Frischknecht, J. G. Curro and L. J. D. Frink, J. Chem. Phys. **117**, 10398 (2002).